

IN THE SPECIFICATION

Please amend the specification as follows:

[0032] In accordance with an aspect of the present invention, passivation walls 210 are formed around each pixel contact pad 113 to provide isolation between adjacent pixel contact pads in order to reduce crosstalk between the contact pads. As indicated in Fig. 2(A), passivation walls 210 have upper edges 211 that extend above an upper surface 225 of each contact pad 113 such that each set of passivation walls 210 surrounding a pixel contact pad 113 defines a trench receiving that pixel contact pad. In one embodiment, passivation walls ~~113~~ 210 are formed when isolation trenches are patterned into a passivation layer in the same process used to form the vias to the metal contact pads. Pixel contact pads 113 are subsequently deposited and patterned in the trenches. Alternatively, after depositing and patterning the metal contact pads on a substantially planar passivation layer, passivation walls 210 can be formed by patterning subsequently deposited passivation material according to known techniques in which pixel contact pad 113 serves as an etch stop, thereby forming trenches in which an upper surface of the pixel contact pads are exposed. In either case, each pixel contact pad 113 is formed such that its upper surface 225 is located below upper edges 211 of the four passivation wall segments surrounding the contact pad. Because each pixel contact pad 113 is surrounded by passivation walls ~~113~~ 210 and separated thereby from adjacent pixel contact pads, the amount of cross-talk between adjacent pixel contact pads is reduced, thereby increasing image sensor resolution.